APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,809	04/18/2000	Yoshimasa Furuike	1-31	2666

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ART UNIT	PAPER NUMBER
2172	11

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/551,809	FURUIKE, YOSHIMASA
	Examiner	Art Unit
	Anh Ly	2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09/04/23</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-19 and 21-40* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,5,11,19,23 and 29* is/are allowed.

6)☒ Claim(s) *3-4,6-10,12-18, 21-22,24-28 and 30-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 April 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *10* .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

1.   Applicant's arguments filed on 09/04/2003 with respect to claims 1, 3-19 and 21-40 have been considered but are moot in view of the new ground(s) of rejection.

2.   Claims 1, 3-19 and 21-40 are pending in this application.

3.   Claims 1, 5, 11, 19, 23 and 29 are allowed.

Allowable Subject Matter

4.   The claims 1 and 19 directed to an apparatus and a method of managing database comprising a second compression method that compresses the attribution record group so that a compression rate is higher that that of the first compression method. These distinct features have been made independent claims 1 and 19 are allowed and their all-dependent claims 5, 11, 23 and 29 are also allowable.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 3-4, 8-9, 13-15, 16-18, 21-22, 26-27, 31-33 and 34-40 are rejected under

35 U.S.C. 103(a) as being unpatentable over US Patent No.5, 778,360 issued to Sugita

et al. (hereinafter Sugita).

With respect to claim 3, Sugita discloses attribution record group forming means

for classifying data, which is requested to be stored into a database, according to

attributions defined in the database, and for making plural attribution record groups

corresponding to each of the attributions (see fig. 1, item 11, database is used by the

controller 17 to encode or decode (compress/decompress) database records, which are

grouped or classified into several group depending on the context of records or the type

of name identifiers as attributions: col. 3, lines 8-50); data compressing means for

compressing each of the attribution record groups into blocks of data (see fig. 1, item 15

is a encoder or data compressing means for encoding database record of the database

11, col. 3, lines 10-15, abstract and col. 5, lines 27-35); file forming means for

combining each of the attribution record groups, which are compressed by the data

compressing means, and for forming a data base file (the database records to be

searched and classified into several groups based on the type of the content of record

or the type of name identifier: col. 3, lines 45-50); data decompressing means for

decompressing a particular attribution record group, which is to be searched, when a

search request for searching the database file is received and wherein the data

decompressing means further decompresses the other attribution record groups, which

are different from the particular attribution record group, when the searching means

finds the target record (operation controller 17 is provided decoder 16 to decode or

decompress database record based on which information the encoder searches the

database: col. 3, lines 20-37 and col. 6, lines 10-25 and col. 6, lines 37-67).

Sugita discloses a database is used to search or retrieve data records, which are

formed and classified into several groups, and the encoder is controlled by operation

controller 17 via a user interface to encode or compress the data record from which the

information to be searched from database. Sugita does not clearly teach searching for a

target record containing a search key in the particular record group.

However, Sugita discloses the search of data is operated by the

operation/display controller (col. 3, lines 25-30) and searching and retrieving the desired

data records stored in the database based on the label field, the key of group records.

Thus, a search is made for records in a same group, the label field or search key, such

as "ROLVapdu", "InvokeIDType" or "OPERATION", is applied as a primary key in the

group of records (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and col. 7,

lines 5-25).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to utilize the searching of record for displaying the result via the

operation/display controller (col. 3, lines 25-30) and providing a way to encoding a data

unit, whose structure is defined by a description and to retrieve records entered in the

database (Sugita – col. 2, lines 18-52).

With respect to claims 4, Sugita discloses the data decompressing means reads

out only the particular attribution record group from the database file, and

decompresses only the particular attribution record group, when the search request is

received (col. 2, lines 1-28 and lines 40-51; also col. 3, lines 8-38); and the data

decompressing means further decompresses the other attribution record groups, when

the searching means finds the target record (col. 3, lines 40-50).

With respect to claims 8-9, Sugita discloses a database managing apparatus as

discussed in claim 6.

Sugita discloses a database is used to search or retrieve data records, which are

formed and classified into several groups, and the encoder is controlled by operation

controller 17 via a user interface to encode or compress the data record from which the

information to be searched from database. Sugita does not clearly teach searching for a

target record containing a search key in the particular record group.

However, Sugita discloses the search of data is operated by the

operation/display controller (col. 3, lines 25-30) and searching and retrieving the desired

data records stored in the database based on the label field, the key of group records.

Thus, a search is made for records in a same group, the label field or search key, such

as "ROLVapdu", "InvokeIDType" or "OPERATION", is applied as a primary key in the

group of records (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and col. 7,

lines 5-25).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to utilize the searching of record for displaying the result via the

operation/display controller (col. 3, lines 25-30) and providing a way to encoding a data

unit, whose structure is defined by a description and to retrieve records entered in the

database (Sugita – col. 2, lines 18-52).

With respect to claim 13, Sugita discloses data decompressing means for decompressing a particular attribution record group, which is to be searched, when a search request for searching the database file is received (col. 3, lines 8-50 and col. 6, lines 37-67); wherein the data decompressing means further decompresses the other attribution record groups, which are different from the particular attribution record group, when the searching means finds the target record (col. 6, lines 37-67).

Sugita discloses a database is used to search or retrieve data records, which are formed and classified into several groups, and the encoder is controlled by operation controller 17 via a user interface to encode or compress the data record from which the information to be searched from database. Sugita does not clearly teach searching for a target record containing a search key in the particular record group.

However, Sugita discloses the search of data is operated by the operation/display controller (col. 3, lines 25-30) and searching and retrieving the desired data records stored in the database based on the label field, the key of group records. Thus, a search is made for records in a same group, the label field or search key, such as "ROLVapdu", "InvokeIDType" or "OPERATION", is applied as a primary key in the group of records (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and col. 7, lines 5-25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the searching of record for displaying the result via the operation/display controller (col. 3, lines 25-30) and providing a way to encoding a data

unit, whose structure is defined by a description and to retrieve records entered in the database (Sugita – col. 2, lines 18-52).

With respect to claim 14, Sugita discloses a database record retrieving apparatus as discussed in claim 13.

Sugita discloses a database is used to search or retrieve data records, which are formed and classified into several groups, and the encoder is controlled by operation controller 17 via a user interface to encode or compress the data record from which the information to be searched from database. Sugita does not clearly teach searching for a target record containing a search key in the particular record group.

However, Sugita discloses the search of data is operated by the operation/display controller (col. 3, lines 25-30) and searching and retrieving the desired data records stored in the database based on the label field, the key of group records. Thus, a search is made for records in a same group, the label field or search key, such as "ROLVapdu", "InvokeIDType" or "OPERATION", is applied as a primary key in the group of records (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and col. 7, lines 5-25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the searching of record for displaying the result via the operation/display controller (col. 3, lines 25-30) and providing a way to encoding a data unit, whose structure is defined by a description and to retrieve records entered in the database (Sugita – col. 2, lines 18-52).

With respect to claim 15, Sugita discloses data decompressing means for decompressing a particular attribution record group, which includes a target record to be retrieved, when a retrieve request for retrieving the target record from the database file is received (col. 3, lines 8-50 and col. 6, lines 37-67).

With respect to claim 16, Sugita discloses data decompressing means for decompressing a particular attribution record group, which is to be searched, when a search request for searching the database file is received (col. 3, lines 8-50); and wherein the data decompressing means further decompresses the other attribution record groups, which are different from the particular attribution record group, when the searching means finds the target record (col. 6, lines 37-67).

Sugita discloses a database is used to search or retrieve data records, which are formed and classified into several groups, and the encoder is controlled by operation controller 17 via a user interface to encode or compress the data record from which the information to be searched from database. Sugita does not clearly teach searching for a target record containing a search key in the particular record group.

However, Sugita discloses the search of data is operated by the operation/display controller (col. 3, lines 25-30) and searching and retrieving the desired data records stored in the database based on the label field, the key of group records. Thus, a search is made for records in a same group, the label field or search key, such as "ROLVapdu", "InvokeIDType" or "OPERATION", is applied as a primary key in the group of records (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and col. 7, lines 5-25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the searching of record for displaying the result via the operation/display controller (col. 3, lines 25-30) and providing a way to encoding a data unit, whose structure is defined by a description and to retrieve records entered in the database (Sugita – col. 2, lines 18-52).

With respect to claim 17, Sugita discloses a database record retrieving apparatus as discussed in claim 16.

Sugita discloses a database is used to search or retrieve data records, which are formed and classified into several groups, and the encoder is controlled by operation controller 17 via a user interface to encode or compress the data record from which the information to be searched from database. Sugita does not clearly teach searching for a target record containing a search key in the particular record group.

However, Sugita discloses the search of data is operated by the operation/display controller (col. 3, lines 25-30) and searching and retrieving the desired data records stored in the database based on the label field, the key of group records. Thus, a search is made for records in a same group, the label field or search key, such as "ROLVapdu", "InvokeIDType" or "OPERATION", is applied as a primary key in the group of records (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and col. 7, lines 5-25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the searching of record for displaying the result via the operation/display controller (col. 3, lines 25-30) and providing a way to encoding a data

unit, whose structure is defined by a description and to retrieve records entered in the
database (Sugita – col. 2, lines 18-52).

With respect to claim 18, Sugita discloses the database file is made up so that
each of the plural attribution record groups is compressed in a unit of each of the
attribution record groups, the data decompressing means reads out only the particular
attribution record group from the database file, and decompresses only the particular
attribution record group; and the data decompressing means further decompresses the
other attribution record groups, when the searching means finds the target record (see
fig. 1, the database 11 containing a plurality of records and records are classified into
several groups based on the type of identifiers being a label for each record in the
database: col. 3, lines 8-50 and col. 6, lines 31-67).

Claim 21 is essentially the same as claim 3 except that it is directed to a method
rather than an apparatus (see fig. 1, item 11, database is used by the controller 17 to
encode or decode (compress/decompress) database records, which are grouped or
classified into several group depending on the context of records or the type of name
identifiers as attributions: col. 3, lines 8-50; see fig. 1, item 15 is a encoder or data
compressing means for encoding database record of the database 11, col. 3, lines 10-
15, abstract and col. 5, lines 27-35; the database records to be searched and classified
into several groups based on the type of the content of record or the type of name
identifier: col. 3, lines 45-50; and operation controller 17 is provided decoder 16 to
decode or decompress database record based on which information the encoder
searches the database: col. 3, lines 20-37 and col. 6, lines 10-25 and col. 6, lines 37-67;

and col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and col. 7, lines 5-25),

and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 22 is essentially the same as claim 4 except that it is directed to a method

rather than an apparatus (col. 2, lines 1-28 and lines 40-51; also col. 3, lines 8-38; and

col. 3, lines 40-50), and is rejected for the same reason as applied to the claim 4

hereinabove.

Claims 26-27 are essentially the same as claims 8-9 except that it is directed to a

method rather than an apparatus (col. 5, lines 40-67 and col. 6, lines 10-20 and lines

48-65 and col. 7, lines 5-25), and is rejected for the same reason as applied to the

claims 8-9 hereinabove.

Claim 31 is essentially the same as claim 13 except that it is directed to a method

rather than an apparatus (col. 3, lines 8-50 and col. 6, lines 37-67; and col. 6, lines 37-

67and col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and col. 7, lines 5-25),

and is rejected for the same reason as applied to the claim 13 hereinabove.

Claim 32 is essentially the same as claim 14 except that it is directed to a method

rather than an apparatus (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and

col. 7, lines 5-25), and is rejected for the same reason as applied to the claim 14

hereinabove.

Claim 33 is essentially the same as claim 15 except that it is directed to a method

rather than an apparatus (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and

col. 7, lines 5-25), and is rejected for the same reason as applied to the claim 15

hereinabove.

Claim 34 is essentially the same as claim 16 except that it is directed to a method

rather than an apparatus (col. 3, lines 8-50; and col. 6, lines 37-67 and col. 5, lines 40-

67 and col. 6, lines 10-20 and lines 48-65 and col. 7, lines 5-25), and is rejected for the

same reason as applied to the claim 13 hereinabove.

Claim 35 is essentially the same as claim 17 except that it is directed to a method

rather than an apparatus (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65 and

col. 7, lines 5-25), and is rejected for the same reason as applied to the claim 17

hereinabove.

Claim 36 is essentially the same as claim 18 except that it is directed to a method

rather than an apparatus (see fig. 1, the database 11 containing a plurality of records

and records are classified into several groups based on the type of identifiers being a

label for each record in the database: col. 3, lines 8-50 and col. 5, lines 40-67 and col.

6, lines 10-20 and lines 48-65 and col. 7, lines 5-25), and is rejected for the same

reason as applied to the claim 18 hereinabove.

With respect to claims 37-38, Sugita discloses wherein the data decompressing

means decompress an attribution group including a target record to be retrieved as the

particular attribution group when a retrieve request for retrieving the target record from

the database file is received (col. 5, lines 40-67 and col. 6, lines 10-20 and lines 48-65

and col. 7, lines 5-25); wherein the data compressing means further comprises a

specific record string, which appears in the attribution record groups frequently

compared to the other record string, for reducing a size of the attribution record groups

(col. 3, lines 8-50).

Claims 39-40 are essentially the same as claims 37-38 except that it is directed

to a method rather than an apparatus (col. 5, lines 40-67 and col. 6, lines 10-20 and

lines 48-65 and col. 7, lines 5-25 and col. 3, lines 8-50), and are rejected for the same

reason as applied to the claims 39-40 hereinabove.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

7.   Claims 6-7, 10, 12, 24-25, 28 and 30 are rejected under 35 U.S.C. 102(b) as

being anticipated by US Patent No.5, 778,360 issued to Sugita et al. (hereinafter

Sugita).

With respect to claim 6, Sugita discloses attribution record group forming means

for classifying data (data record is classified into several groups of data record based on

the type of identifier names: col. 3, lines 45-50) which is requested to be stored into a

database, according to attributions defined in the database, and for making plural

attribution record groups corresponding to each of the attributions (see fig. 1, item 11,

database is used by the controller 17 to encode or decode (compress/decompress);

data compressing means for compressing only the other attribution record groups,

which are different from a particular attribution record group to be searched, in the plural

attribution record groups (see fig. 1, item 15 is a encoder or data compressing means

for encoding database record of the database 11, col. 3, lines 10-15, abstract and col. 5,

lines 27-35); and file forming means for combining the other attribution record groups,

which are compressed by the data compressing means, and the particular attribution

record group, so as to forth a database file (the database records to be searched and

classified into several groups based on the type of the content of record or the type of

name identifier: col. 3, lines 45-50).

With respect to claims 7 and 10, Sugita discloses data compressing means

compresses each of the other attribution record groups into blocks of data (col. 3, lines

8-36); and data decompressing means for decompressing a particular attribution record

group, which includes a target record to be retrieved, when a retrieve request for

retrieving the target record from the database file is received (col. 3, lines 8-50 and col.

6, lines 37-67).

With respect to claim 12, Sugita discloses the data compressing means further

compresses a specific record string, which appears in the attribution record groups

frequently compared to the other record string, to reduce a size of the attribution record

groups (col. 5, lines 28-55).

Claim 24 is essentially the same as claim 6 except that it is directed to a method

rather than an apparatus (data record is classified into several groups of data record

based on the type of identifier names: col. 3, lines 45-50; see fig. 1, item 11, database is

used by the controller 17 to encode or decode (compress/decompress); see fig. 1, item

15 is a encoder or data compressing means for encoding database record of the

database 11, col. 3, lines 10-15, abstract and col. 5, lines 27-35; and the database

records to be searched and classified into several groups based on the type of the

content of record or the type of name identifier: col. 3, lines 45-50), and is rejected for

the same reason as applied to the claim 6 hereinabove.

Claim 25 is essentially the same as claim 7 except that it is directed to a method

rather than an apparatus (col. 3, lines 8-36), and is rejected for the same reason as

applied to the claim 7 hereinabove.

Claim 28 is essentially the same as claim10 except that it is directed to a method

rather than an apparatus (col. 3, lines 8-50 and col. 6, lines 37-67), and is rejected for

the same reason as applied to the claim 10 hereinabove.

Claim 30 is essentially the same as claim 12 except that it is directed to a method

rather than an apparatus (col. 5, lines 28-55), and is rejected for the same reason as

applied to the claim 12 hereinabove.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

US Patent No. 5,586,280 issued to Simms

US Patent No. 6,539,389 issued to Geiner et al.

US Patent No. 6,360,019 issued to Chaddha

US Patent No. 6,247,015 issued to Baumgartner et al.

Contact Information

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Anh Ly whose telephone number is 703 306-4527 or via

E-Mail: ANH.LY@USPTO.GOV. The examiner can normally be reached on 7:30 AM -

4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Vu can be reached on 703 305-4393. The fax phone number for the

organization where this application or proceeding is assigned is 703 746-7239.

Any response to this action should be mailed to:
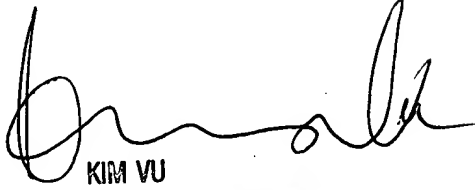
Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: Central Office (703) 872-9306 (effective from 08/04/2003)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Fourth Floor (receptionist).

Any inquiry of a general nature or relating to the status of this application

or proceeding should be directed to the receptionist whose telephone number is 703

308-6606 or 703 305-3900.

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

AL
Nov. 8th, 2003